

## AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior versions, and listings, of claims in the captioned patent application:

### **Listing of Claims:**

1. (Currently Amended) A method for using a plurality of error-detectable key fragments of an original license key string for authorizing use of software, comprising:
  - fragmenting the original key string into a plurality of key fragments;
  - calculating for each key fragment corresponding check data;
  - combining each key fragment with its corresponding check data to form said error-detectable key fragments;
  - at least one of calculating and retrieving from a dictionary one or more partial a ~~corresponding~~ friendly key fragment for each of said error-detectable key fragments;
  - ~~combining each of said error-detectable key fragments and said corresponding friendly key fragment to form friendly error-detectable key fragments and~~
  - generating said friendly error-detectable key fragment ~~from the~~ fragments from said one or more partial friendly key fragment the first partial friendly fragments and said error-detectable key fragments ~~fragment and the corresponding check data.~~
2. (Currently Amended) The method of claim 1, further comprising:
  - receiving a plurality of user-entered key fragments;
  - using said corresponding check data of said received key fragments to detect whether said received key fragments were entered correctly; and
  - generating an error message when a received key fragment is inaccurate.

3. (Currently Amended) The method of claim 1, further comprising:  
receiving a plurality of user-entered key fragments;  
using said corresponding check data of said received key fragments to detect ~~whether the~~  
whether said received key fragments were entered correctly; and  
defragmenting ~~the key data of the~~ key data of said received key fragments into a  
reconstituted key string that is the same as the original key string.
4. (Currently Amended) The method of claim 3, wherein said defragmenting ~~of the~~ of said  
key data is performed when all received key fragments are entered correctly.
5. (Original) The method of claim 4, further comprising:  
providing the reconstituted key string to a software package to enable use of the software  
package.
6. (Original) The method of claim 4, further comprising:  
providing the reconstituted key string to a hardware component to enable use of the  
hardware component or a portion thereof.
7. (Original) The method of claim 1, wherein receiving the key string comprises:  
receiving the key string in computer-readable form from a key generator.
8. (Currently Amended) The method of claim 1, further comprising:  
providing said friendly error-detectable key fragments in human-readable form.
9. (Cancelled)

10. (Currently Amended) The method of claim 1, wherein each said friendly error-detectable key fragment comprises at least one word.

11. (Currently Amended) The method of claim 1, wherein each said friendly error-detectable key fragment is longer ~~than the~~ than said corresponding key fragment.

12. (Currently Amended) The method of claim 1, wherein combining ~~each key~~ a key fragment with its corresponding check data ~~to form~~ to form a friendly error-detectable key ~~fragments~~ fragment further comprises:

using at least a portion of one of either said key fragment or said check data to index and select data ~~from the~~ from said dictionary to form at least a portion of said friendly error-detectable key fragment.

13. (Currently Amended) A method for using a plurality of friendly error-detectable key fragments of an original license key string for authorizing use of software, comprising:

fragmenting the original key string into a plurality of key fragments;

calculating for each key fragment corresponding check data; and

combining each key fragment with its corresponding check data ~~to form said~~ to form said friendly error-detectable key fragments, wherein combining each key fragment with its corresponding check data to form friendly error-detectable key fragments further comprises:

generating a first partial friendly error-detectable key fragment ~~from the~~ from said key fragment;

generating a second partial friendly error-detectable key fragment ~~from the~~ from said corresponding check data; and

generating said friendly error-detectable key fragment ~~from the~~ from said first partial friendly error-detectable key fragment ~~and the~~ and said second partial friendly error-detectable key fragment.

14. (Currently Amended) A method of segmenting a license key string for authorizing use of software into a plurality of error-correctable key fragments, comprising:
- fragmenting the key string into a plurality of key fragments;
  - calculating for each key fragment corresponding error-correction data; and
  - combining each key fragment with said corresponding error-correction data ~~to for to form~~ a plurality of error-correctable key fragments;
- at least one of calculating and retrieving from a dictionary ~~a corresponding one or more partial~~ friendly key fragment for each of said ~~error-detectable~~ error-correctable key fragments;
- and
- ~~combining each of said error-detectable said key fragments and said corresponding friendly key fragment to form friendly error-detectable key fragments, wherein said error-correction data permits the identification of errors in said error-correctable key fragments~~
- generating said friendly ~~error-detectable~~ error-correctable key fragment fragments from the key fragment the first said one or more partial friendly error-detectable key fragment fragments and the and said error-correctable key fragments ~~corresponding check data.~~
15. (Currently Amended) The method of claim 14, further comprising:
- providing ~~the plurality of~~ said friendly error-correctable key fragments in human-readable form.
16. (Currently Amended) The method of claim 14, further comprising:
- receiving a plurality of user-entered friendly error-correctable key fragments;
  - identifying errors in each received friendly error-correctable key fragment using ~~said~~ corresponding error-correction data in the received friendly error-correctable key fragments; and
  - defragmenting the key data of the received error-correctable key fragments into a reconstituted key string that is the same as the original license key string.
17. (Currently Amended) The method of claim 16, further comprising:
- generating an error message indicating ~~said identifier~~ said identified errors in each received friendly error-correctable key fragment ~~fragments~~.

18. (Currently Amended) The method of claim 16, wherein generating an error message comprises:

generating an error message that identifies one or more portions ~~of the~~ of said received error-correctable key fragment that was entered incorrectly.

19. (Currently Amended) The method of claim 16, further comprising:

providing ~~said~~ the reconstituted key string to a software package to enable use of the software package.

20. (Currently Amended) The method of claim 16, further comprising:

providing ~~said~~ the reconstituted key string to a hardware component to enable use of the hardware component or a portion thereof.

21. (Original) The method of claim 14, further comprising:

receiving the original key string in computer-readable form from a key generator.

22. (Cancelled)

23. (Original) The method of claim 14, wherein each friendly error-correctable key fragment comprises at least one word.

24. (Original) The method of claim 14, wherein each friendly error-correctable key fragment comprises a greater number of characters than said corresponding key fragment.

25. (Currently Amended) The method of claim 14 ~~claim 22~~, wherein combining each key fragment with its corresponding check data to ~~form~~ form a friendly error-correctable key fragments fragment comprises:

using at least a portion of one of either said key fragment or said error correction data to index and select data ~~from the~~ from a dictionary to form at least a portion of said friendly error-correctable key fragment.

26. (Currently Amended) The method of claim 14 ~~claim 22~~, further comprising:  
receiving a plurality of entered friendly error-correctable key fragments each comprising key data and corresponding error correction data;  
using said error correction data to detect errors in said corresponding key data; and  
generating an error message identifying said detected errors.

27. (Currently Amended) The method of claim 14 ~~claim 22~~, further comprising:  
receiving a plurality of entered friendly error-correctable key fragments each comprising key data and error correction data;  
using error correction data to detect errors in said corresponding key data; and  
defragmenting correct friendly error-correctable key fragments to form a reconstituted license key string.

28. (Currently Amended) An article of manufacture, comprising:

a computer-readable medium storing computer-executable instructions capable of segmenting a key string for authorizing use of software into a plurality of friendly error-detectable key fragments, comprising:

fragmenting the original key string into a plurality of key fragments;  
calculating for each key fragment corresponding check data;  
combining each key fragment with its corresponding check data to form ~~said error-detectable key fragments~~, fragments;

at least one of calculating and retrieving from a dictionary ~~a corresponding one or more partial friendly key fragment fragments~~ for each of said error-detectable key fragments; and

~~combining each of said error-detectable key fragments and said corresponding friendly key fragment to form friendly error-detectable key fragments; and~~

generating said friendly error-detectable key ~~fragment fragments~~ from the key fragment ~~the first said one or more partial friendly error-detectable key fragments fragment and the and said error-detectable fragments~~ corresponding check data.

29. (Currently Amended) The article of manufacture of claim 28, further comprising:

receiving a plurality of user-entered key fragments;  
using ~~said~~ corresponding check data of said received key fragments to detect whether said received key fragments were entered correctly; and  
generating an error message when a received key fragment is inaccurate.

30. (Currently Amended) The article of manufacture of claim 28, further comprising:

receiving a plurality of user-entered key fragments;  
using ~~said~~ corresponding check data of said received key fragments to detect ~~whether the whether said~~ received key fragments were entered correctly; and  
defragmenting ~~the key data of the~~ of said received key fragments into a reconstituted key string that is the same as the original key string.

31. (Original) The article of manufacture of claim 30, further comprising:  
providing the reconstituted key string to a software package to enable use of the software package.
32. (Original) The article of manufacture of claim 30, further comprising:  
providing the reconstituted key string to a hardware component to enable use of the hardware component or a portion thereof.
33. (Cancelled)
34. (Currently Amended) The article of manufacture of claim 28 ~~claim 33~~, wherein each friendly error-detectable key fragment comprises at least one word.
35. (Currently Amended) An article of manufacture, comprising:  
a computer-readable medium storing computer-executable instructions capable of segmenting a key string for authorizing use of software into a plurality of friendly error-correctable ~~error-detectable~~ key fragments, comprising:  
fragmenting the key string into a plurality of key fragments;  
calculating for each key fragment corresponding error-correction data;  
combining each key fragment with said corresponding error-correction data ~~to for a to~~ form a plurality of error-correctable key fragments, wherein said error-correction data permits the identification of errors in said error-correctable key fragments;  
at least one of calculating and retrieving from a dictionary ~~a corresponding one or more partial friendly key fragment fragments~~ fragments for each of said ~~error-detectable~~ error-correctable key fragments; and  
~~combining each of said error-detectable key fragments and said corresponding friendly key fragment to form friendly error-detectable key fragments~~  
generating said friendly ~~error-detectable~~ error-correctable key ~~fragment fragments~~ fragments from the key fragment the first said one or more partial friendly ~~error-detectable~~ key ~~fragment fragments~~ fragments and the and said error-correctable key fragments ~~corresponding check data~~.



36. (Currently Amended) The article of manufacture of claim 35, further comprising:  
receiving a plurality of user-entered friendly error-correctable key fragments;  
identifying errors in each received friendly error-correctable key fragment using ~~said~~  
corresponding error-correction data ~~in the~~ in said friendly received error-correctable key  
fragments; and  
defragmenting ~~the~~ key data of the received friendly error-correctable key fragments into a  
reconstituted key string that is the same as the original license key string.
37. (Currently Amended) The article of manufacture of claim 36, further comprising:  
generating an error message indicating said ~~identifier~~ identified errors in each received  
friendly error-correctable key fragments.
38. (Currently Amended) The article of manufacture of claim 36, wherein generating an error  
message comprises:  
generating an error message that identifies one or more portions ~~of the~~ of said received  
friendly error-correctable key fragment that was entered incorrectly.
39. (Currently Amended) The article of manufacture of claim 36, further comprising:  
providing said ~~the~~ reconstituted key string to a software package to enable use of the  
software package.
40. (Currently Amended) The article of manufacture of claim 36, further comprising:  
providing said ~~the~~ reconstituted key string to a hardware component to enable use of the  
hardware component or a portion thereof.
41. (Cancelled)

42. (Currently Amended) The article of manufacture of claim 35 ~~claim 41~~, wherein combining each key fragment with its corresponding check data to form said friendly error-correctable key fragments comprises:

using at least a portion of one of either said key fragment or said error correction data to select data from a dictionary to form at least a portion of said friendly error-correctable key fragment.

43. (Currently Amended) The article of manufacture of claim 35 ~~claim 41~~, further comprising: receiving a plurality of entered friendly error-correctable key fragments each comprising key data and corresponding error correction data;

using said error correction data to detect errors in said corresponding key data; and generating an error message identifying said detected errors.

44. (Currently Amended) The article of manufacture of claim 35 ~~claim 41~~, further comprising:

receiving a plurality of entered friendly error-correctable key fragments each comprising key data and error correction data;

using said error correction data to detect errors in said corresponding key data; and

defragmenting ~~correct~~ said friendly error-correctable key fragments to form a reconstituted license key string.

45. (Currently Amended) A key fragment generator for segmenting a key string M authorizing use of software into a plurality of friendly error-detectable key fragments, comprising:
- a key fragmenter adapted to input the key string and produce key fragments;
  - a check data generator configured to calculate check data corresponding to the said key fragments, wherein ~~the check~~ said check data can be subsequently used to detect if ~~the~~ if said corresponding key fragment is entered incorrectly;
  - a combiner configured to combine ~~the key~~ said key fragments and ~~the~~ and said corresponding check data to provide ~~the plurality of~~ error-detectable key fragments; and
  - ~~a dictionary configured to provide friendly key fragments.~~
  - a friendly key-generator configured to at least one of calculate or retrieve from a dictionary one or more partial friendly key fragments, and to generate said friendly error-detectable key fragments from said one or more partial friendly key fragments and said error-detectable key fragments.
46. (Currently Amended) The key fragment generator of claim 45, ~~further comprising:~~
- ~~a friendly key generator configured to convert error-detectable key fragments into friendly error-detectable key fragments by combining error-detectable key fragments and friendly key fragments,~~
  - wherein said friendly error-detectable key fragments are words recognizable by humans.

47. (Currently Amended) A key defragmenter for combining a plurality of entered friendly error-detectable key fragments into a reconstituted key string for authorizing use of software, each friendly error-detectable key fragment comprising error-detectable key fragments, check data, key data and one or more partial friendly key fragments ~~key data and check data~~, the key defragmenter comprising:

a friendly fragment convertor configured to extract said error-detectable key fragments from said friendly error-detectable key fragments;

an error checker adapted to use the use said check data of at least one of the of said entered friendly error-detectable key fragments to detect ~~if the~~ if said entered friendly error-detectable key fragment is entered incorrectly;

an accumulator adapted to defragment the key said key data of the of said entered friendly error-detectable key fragments into the reconstituted key string ~~and~~ and to provide the reconstituted key string, string; and

a dictionary configured to provide friendly key fragments.

48. (Cancelled)

49. (Currently Amended) A key defragmenter for combining a plurality of entered friendly key fragments formed from one or more partial key fragments and one or more error-detectable key fragments into a reconstituted key string for authorizing use of software, comprising:

a friendly fragment converter adapted to ascertain said error-detectable key fragments-a key fragment, from which the entered friendly key fragment was calculated;

an error checker adapted to use check data of at least one of said error-detectable key fragments to detect if each said entered friendly error-detectable key fragment is entered incorrectly;

an accumulator adapted to defragment the defragment said ascertained key fragments into the reconstituted key string and to provide externally said reconstituted key string, string; and

a dictionary configured to provide friendly key fragments.

50. (Currently Amended) A key fragment generator for segmenting a key string for authorizing use of software into a plurality of friendly error-correctable key fragments, comprising:

a key fragmenter configured to fragment the original key string into a plurality of key fragments;

an error correction module configured to calculate error correction data corresponding to each key fragment, wherein error correction data can subsequently be used to determine the accuracy ~~of the~~ of said corresponding key ~~data; data; and~~

a combiner configured to combine each key fragments with its corresponding error correction data to provide ~~the plurality of~~ error-correctable key fragments;

a dictionary configured to provide one or more partial friendly key fragments;

a friendly key generator configured to ~~convert error-correctable key fragments into~~ generate said friendly error-correctable key fragments ~~by combining from said one or more partial friendly key fragments and said error-correctable key fragments, wherein said friendly error-correctable key fragments comprise human-recognizable words; and generating said friendly error-detectable key fragment from the key fragment the first partial friendly error-detectable key fragment and the corresponding check data.~~

51. (Canceled).

52. (Currently Amended) The key fragment generator of claim 50, further comprising:

a confusability evaluator configured to evaluate confusability of one or more ~~of the~~ of said key fragments and, based on the confusability, select an error correction algorithm from a plurality of error correction algorithms.

53. (Currently Amended) A licensing key defragmenter for combining a plurality of entered friendly error-correctable key fragments into a reconstituted key string for authorizing use of software, each error-correctable key fragment comprising one or more partial friendly key fragments, key data and error correction data, the key defragmenter comprising:

a friendly fragment converter configured to extract said error correction data from each said friendly error-correctable key fragments;

an error correction module configured to use the use said error correction data to identify a portion of the of each said entered friendly error-correctable key fragment that was entered incorrectly;

an accumulator adapted to defragment the key data of the of said entered friendly error-detectable key fragments into the reconstituted key string and to provide the reconstituted key string; and

a dictionary configured to provide friendly key fragments.

54- 56 (Cancelled)

57. (Previously Presented) The method of claim 13, wherein each friendly error-detectable key fragment comprises at least one word.

58. (Previously Presented) The method of claim 13, wherein each friendly error-detectable key fragment is longer than the corresponding key fragment.

59. (Previously Presented) The method of claim 13, wherein combining each key fragment with its corresponding check data to form friendly error-detectable key fragments further comprises:

using at least a portion of one of either said key fragment or said check data to select data from a dictionary to form at least a portion of said friendly error-detectable key fragment.